



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
SCIENCE

DOE/SC CD-2/3 Review

of the

Muon $g-2$ Project

Fermi National Accelerator Laboratory

July 29-31, 2014

Kurt W. Fisher

Committee Chair

Office of Science, U.S. Department of Energy

<http://www.science.doe.gov/opa/>



DOE EXECUTIVE SESSION AGENDA

Tuesday, July 29, 2014—Comitium (WH2SE)

8:00 a.m.	DOE Executive Session.....	K. Fisher
8:10 a.m.	Program Perspective.....	T. Lavine
8:20 a.m.	Federal Project Director Perspective.....	P. Philp
8:40 a.m.	Questions	
8:45 a.m.	Adjourn	

Project and review information is available at:

<http://www.fnal.gov/directorate/OPMO/Projects/g-2/DOERev/2014/20140729/review.html>

Username: G2Mreviewer

Password: g2mrev



Review Committee Participants

Kurt W. Fisher, DOE/SC, Chairperson

**SC1
Accelerator**

* Rod Gerig
Peter Ostroumov, ANL

**SC2
Storage Ring**

* Soren Prestemon, LBNL
Sasha Zholents, ANL
Mike Zisman, LBNL

**SC3
Technical Integration**

* Bill Wisniewski, SLAC
Claus Rode, TJNAF
Bruce Strauss, DOE/SC

**SC4
Instrumentation**

* Marc Ross, SLAC
Richard Kass, OSU
Walter Toki, Colorado State
Ren-yuan Zhu, Caltech

**SC5
Cost and Schedule**

* Ron Lutha, DOE/ASO
Jerry Kao, DOE/SC

**SC6
Project Management**

* Dan Green, FNAL Emeritus
Joe Harkins, LBNL
Steve Trotter, ORNL

Observers

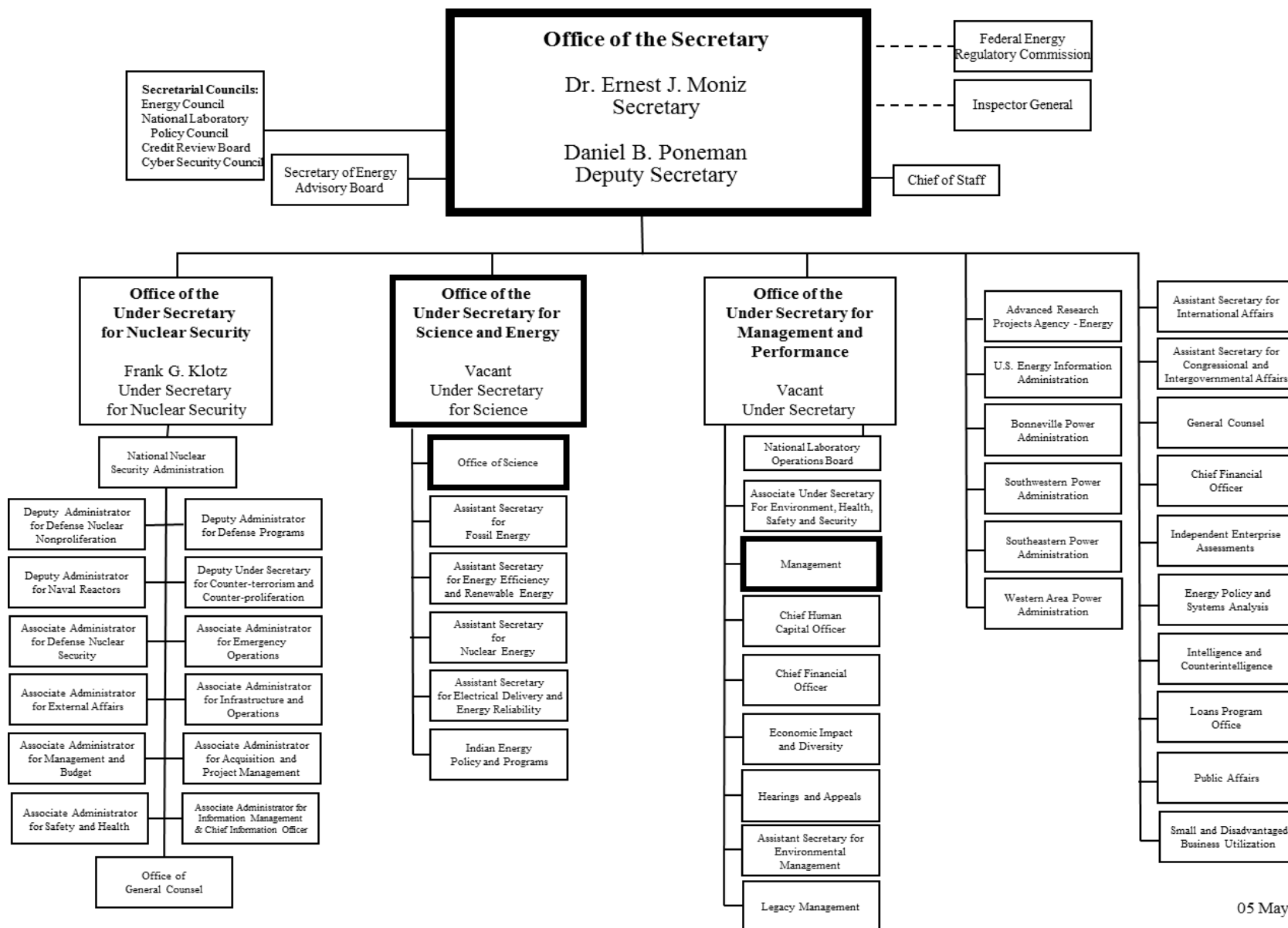
Jim Siegrist, DOE/SC
Mike Procario, DOE/SC
Alan Stone, DOE/SC
Ted Lavine, DOE/SC
Tim Bolton, DOE/SC
John Kogut, DOE/SC

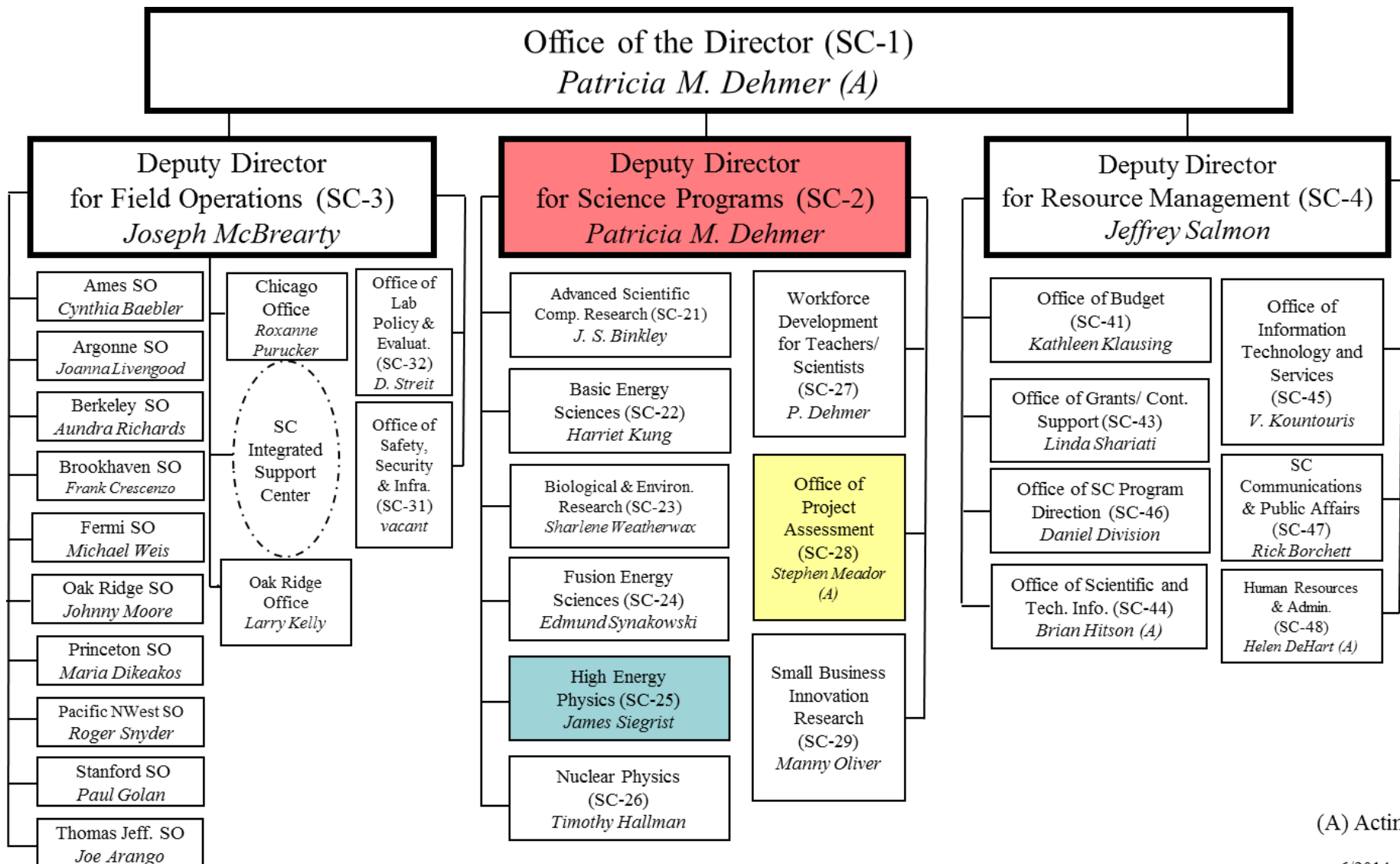
Pepin Carolan, DOE/FSO
Paul Philp, DOE/FSO

LEGEND

SC Subcommittee
* Chairperson

Count: 18 (excluding observers)





(A) Acting



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2. Is the cost estimate and schedule consistent with the plan to deliver the technical scope? Is the contingency adequate for the risk?
3. Is the management structure and resources adequate to deliver the proposed technical scope within the baseline budget and schedule as specified in the PEP?
4. Is the documentation required by DOE Order 413.3B for CD-2 complete?
5. Are ES&H aspects being properly addressed given the project's current stage of development?
6. Has the project responded satisfactorily to the recommendations from the previous independent project review?
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8. Is the documentation required by DOE Order 413.3B for CD-3 complete?



Tuesday, July 29, 2014—Comitium (WH2SE)

8:00 am	DOE Executive Session— Comitium (WH2SE)	K. Fisher
8:50 am	Welcome— Curia II (WH2SW)	G. Bock
9:00 am	Introduction and the Fermilab Context.....	G. Bock
9:15 am	Project Overview	C. Polly
10:00 am	Break— WH2 Crossover WH2XO	
10:15 am	Accelerator (WBS 476.2)	M. Convery
10:55 am	Ring (WBS 476.3)	H. Nguyen
11:45 am	Detectors (WBS 476.4)	B. Casey
12:25 pm	Lunch	
1:15 pm	Tour of MC-1 Building	
2:15 pm	Subcommittee Breakout Sessions	
3:30 pm	Break	
3:45 pm	Subcommittee Breakout Sessions Continued	
5:00 pm	Subcommittee Executive Session	
5:30 pm	DOE Full Committee Executive Session.....	K. Fisher
6:30 pm	Adjourn	



Wednesday, July 30, 2014

8:00 am	Subcommittee Breakout Sessions Continued
12:00 pm	Lunch
1:00 pm	Response to Questions— Comitium (WH2SE)
2:00 pm	Subcommittee Executive Session/Report Writing
3:45 pm	DOE Full Committee Executive SessionK. Fisher
5:00 pm	Adjourn

Thursday, July 31, 2014

8:00 am	Committee Report Writing— Comitium (WH2SE)
10:30 am	DOE Full Committee Executive Session Dry Run/Working LunchK. Fisher
1:30 pm	Closeout Presentation— One West (WH1W)
2:30 pm	Adjourn



Report Outline/ Writing Assignments

Executive Summary	Fisher*
1. Introduction	Lavine*
2. Technical Systems Evaluation (Charge Questions 1, 3, 4, 6, 7, 8)	
2.1 Accelerator	Gerig*/SC-1
2.1.1 Findings	
2.1.2 Comments	
2.1.3 Recommendations	
2.2 Storage Ring	Prestemon*/SC-2
2.3 Technical Integration.....	Wisniewski*/SC-3
2.4 Instrumentation.....	Ross*/SC-4
3. Environment, Safety and Health (Charge Questions 3, 4, 5, 6, 7, 8)	Trotter*/SC-6
4. Cost and Schedule (Charge Questions 1, 2, 3, 4, 6, 7, 8)	Lutha*/SC-5
5. Project Management (Charge Questions 1, 3, 4, 6, 7, 8)	Green*/SC-6

*Lead



Closeout Presentation and Final Report Procedures



Format: Closeout Presentation

(Use PowerPoint / No Smaller than 18 pt Font)

2.1 Use Section Number/Title corresponding to writing assignment list.

List Review Subcommittee Members

List Assigned Charge Questions and Review Committee Answers

2.1.1 Findings – What the project told us

- In bullet form, include your account of factual technical, cost, schedule, and management. Information provided/presented by the Project

2.1.2 Comments – What we think about what the project told us

- In bullet form, include your assessment of project status (observations, concerns, feedback, suggestions, etc.) based on the findings. This section carries more emphasis than the Findings, but does not require an action as do the Recommendations. Do not number your comments.

2.1.3 Recommendations – What we think the project needs to do

- 1. Beginning with an action verb, provide a brief, concise, and clear statement with a due date.**
- 2.**



Format: Final Report

(Use MS Word / 12pt Font)

2.1 Use Section Number/Title corresponding to writing assignment list.

2.1.1 Findings – What the project told us

Include a brief narrative description of technical, cost, schedule, and management information provided by the project. Each subcommittee will emphasize their area of responsibility.

2.1.2 Comments – What we think about what the project told us

Descriptive material assessing the findings and making observations and conclusions based on the findings. **In addition, the committee's answer to the charge questions should be contained within the text of the Comments Section.** Do not number your comments.

2.1.3 Recommendations – What we think the project needs to do

1. Beginning with an action verb, provide a brief, concise, and clear statement with a due date.
- 2.
- 3.

Please Note: Recommendations are approved by the full committee and presented at the review closeout briefing. Recommendations SHOULD NOT be changed or altered from the closeout report to the Final Report.



- **Present closeout reports in PowerPoint.**
- **Forward your sections for each review report (in MSWord format) to Casey Clark, casey.clark@science.doe.gov, by Monday, August 4, 8:00 a.m. (EDT).**



Closeout Report on the DOE/SC CD-2/3 Review of the Muon $g-2$ Project Fermi National Accelerator Laboratory July 29-31, 2014

Kurt W. Fisher
Committee Chair
Office of Science, U.S. Department of Energy
<http://www.science.doe.gov/opa/>



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- **Findings**
 - **Comments**
 - **Recommendations**



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- **Findings**
- **Comments**
- **Recommendations**



PROJECT STATUS		
Project Type	MIE / Line Item / Cooperative Agreement	
CD-1	Planned:	Actual:
CD-2	Planned:	Actual:
CD-3	Planned:	Actual:
CD-4	Planned:	Actual:
TPC Percent Complete	Planned: _____%	Actual: _____%
TPC Cost to Date		
TPC Committed to Date		
TPC		
TEC		
Contingency Cost (w/Mgmt Reserve)	\$ _____	_____ % to go
Contingency Schedule on CD-4b	_____ months	_____ %
CPI Cumulative		
SPI Cumulative		



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